

Common Name / Species Name	EPBC Act Listing	PMST Advice	Assessment (likelihood of occurrence within the Project Area) & Justification
Birds			
Abbott's booby (<i>Papasula abbotti</i>)	Endangered, Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The Abbott's booby is a large, long-lived seabird known only to nest at Christmas Island. This species is known to forage over large distances offshore (up to 100 km) when nesting. Nesting habitat is restricted to heights of greater than 150 m in tall rainforests in the western, central and northern portions of Christmas Island (Commonwealth of Australia et al., 2004). This species is not considered likely to occur within the Project Area due to the distance from known nesting / foraging locations.
Australian lesser noddy (<i>Anous tenuirostris melanops</i>)	Vulnerable, Marine	Species or species habitat <i>may</i> occur within area	May occur This species may occur within the Project Area (albeit in low numbers) due to its known occurrence at Scott Reef and foraging behaviours. An important population of the species is not present based on the definition of being part of an important population (CoA, 2013). The Australian lesser noddy, in particular those birds which utilise Scott Reef, may use the Project Area for foraging activities. The species is not restricted to or reliant on habitats within the Project Area, and the area does not represent a BIA for the species or habitat critical to the survival of the species.
Barn swallow (<i>Hirundo rustica</i>)	Migratory (Terrestrial), Marine (Overfly)	Species or species habitat <i>known</i> occur within area	Not likely to occur This species a non-breeding summer migrant from Asia common throughout the northern hemisphere. They regularly occur in the Kimberly area but elsewhere, sightings are sporadic (Trounson, D., & Trounson, M., 2002). They are usually found in northern Australia on Cocos-Keeling Island, Christmas Island and Ashmore Reef. The barn swallow prefers habitat with artificial structures or near towns and cities. Due to this species reliance on anthropogenic structures, their insectivorous diet and the absence of key sites within the Project Area, they are not expected to occur within the Project Area, other than as migratory vagrants and, if so, are only expected to occur in low numbers.

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Christmas Island White-tailed bird (<i>Phaethon lepturus fulvus</i>)	Endangered, Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The white-tailed tropicbird subspecies is endemic to Christmas Island, which is its only known breeding location. The species roosts and forages over the Indian Ocean (DoE, 2014). As the species does not have an important habitat within the Project Area and due to the distance from known breeding locations, this species is not expected to occur within the Project Area.
Common noddy (<i>Anous stolidus</i>)	Migratory Marine, Marine	Species or species habitat <i>likely</i> occur within area	May occur This species may occur within the Project Area, albeit in low numbers. Given the low abundance recorded near to the Project Area and the distance from breeding sites (e.g., Christmas Island and Cocos Keeling Islands), common noddy's may be present in the Project Area. Low numbers of common noddy may utilise the Project Area for occasional foraging and/or may overfly the area during transit. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
Common sandpiper (<i>Actitis hypoleucos</i>)	Migratory (Wetland), Marine	Species or species habitat <i>known</i> occur within area	Not likely to occur Within Australia the common sandpiper utilises narrow and steep shoreline habitats, often in sheltered areas with few other birds. The species also frequents mangrove habitats in higher numbers, as well as varied wetland habitats. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Curlew sandpiper (<i>Calidris ferruginea</i>)	Critically Endangered, Migratory (Wetland), Marine (overfly)	Species or species habitat <i>may</i> occur within area	Not likely to occur The curlew sandpiper utilises tidal flat and open muddy shore habitats, as well as freshwater and brackish wetlands (Menkhorst et al., 2017). The species is usually found in flocks with other wetland bird species (Menkhorst et al., 2017). The curlew sandpiper does not have key sites within the Project Area and is not expected to occur within the Project Area.
Eastern curlew (<i>Numenius madagascariensis</i>)	Critically Endangered, Migratory (Wetland), Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The eastern curlew is a migratory shorebird which is patchily but widely distributed along the WA coastline. The species utilises open beach habitat and saltmarshes. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.

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Greater frigatebird (<i>Fregata minor</i>)	Migratory (Marine), Marine	Foraging, feeding or related behaviour <i>likely</i> to occur within area	Not likely to occur The greater frigatebird breeds at North Keeling and Christmas Island, as well as in smaller numbers at Ashmore Reef and Adele Island in WA (Menkhorst et al., 2017). There are breeding BIAs for this species associated with the Kimberly coastline and Ashmore Reef, the nearest being approximately 65 km from the Project Area. As the species does not have important habitat within the Project Area and due to the distance from known breeding locations, this species is not expected to occur within the Project Area.
Grey wagtail (<i>Motacilla cinerea</i>)	Migratory (Terrestrial), Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The grey wagtail is known to occur in low numbers at Ashmore Reef, Christmas and Cocos (Keeling) Islands between late October and April. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Lesser frigatebird (<i>Fregata ariel</i>)	Migratory Marine, Marine	Species or species habitat <i>known</i> occur within area	May occur Due to this species distribution across north-west WA offshore islands, it may be present within the Project Area in low numbers as it forages. Notably, Scott Reef (the nearest emergent land mass to the Project Area) has not been identified as supporting this species. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
Little tern (<i>Sternula albifrons</i>)	Migratory Marine, Marine	Congregation or aggregation <i>known</i> to occur within area	Likely to occur The species is likely to occur within the Project Area given the known presence of a number of birds at Scott Reef and as a resting BIA overlaps the Project Area. Notably, this migratory shorebird species forages over sheltered waters and intertidal areas, as opposed to open offshore waters. The Project Area is, therefore; not considered to provide suitable foraging habitat for this species. The species is not restricted to or reliant on the Project Area, however; the Project Area overlaps a small portion of the peripheral part of the resting BIA associated with Scott Reef. The Project Area does not provide habitat critical to the survival of the species.

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Pectoral sandpiper (<i>Calidris melanotos</i>)	Migratory (Wetland), Marine	Species or species habitat may occur within area	Not likely to occur The pectoral sandpiper is considered to be an uncommon but regular visitor to Australia which gathers in the grassy edges of freshwater wetlands, as well as brackish wetlands when no freshwater is available. Unlike other migratory shorebirds, the species rarely forages on tidal flats. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Red knot (<i>Calidris canutus</i>)	Vulnerable, Migratory (Wetland), Marine (overfly)	Species or species habitat may occur within area	Not likely to occur The red knot utilises firm tidal flats in coastal areas, with large numbers restricted to extensive tidal flat areas (Menkhorst et al., 2017). They are a migratory species which migrate to the northern hemisphere around April and May (Menkhorst et al., 2017). The red knot does not have key sites within the Project Area and is not expected to occur within the Project Area.
Red-footed booby (<i>Sula sula</i>)	Migratory (Wetland), Marine	Breeding known to occur within area	May occur Due to the presence of BIAs (foraging/breeding areas) north-east and south-east of the Project Area, the significant abundance at Ashmore Reef and foraging behaviour of this species (i.e. open ocean plunge diving), the red-footed booby may occur within the Project Area, albeit in low numbers. It is noted that the species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
Red-rumped swallow (<i>Cecropis daurica</i>)	Migratory (Terrestrial), Marine	Species or species habitat may occur within area	Not likely to occur The red-rumped swallow is considered to be a regular non-breeding migrant within Australia. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Red-tailed Tropicbird (<i>Phaethon rubricauda westrali</i>)	Endangered, Marine	Species or species habitat known to occur within area	May occur The species is known to breed on several islands within Australia, including Bedwell Island, Rowley Shoals and Islands of Ashmore Reef. While not breeding, the species has a wide range across the eastern Indian Ocean (DCCEEW, 2023) Due to the proximity of breeding islands to the Project Area, this species may occur, overflying or foraging within the Project Area.

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Sharp-tailed sandpiper (<i>Calidris acuminata</i>)	Vulnerable, Migratory (Wetland), Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The sharp-tailed sandpiper is a migratory shorebird species which often flocks with other shorebird species. This species is considered to be one of the most numerous migratory shorebird birds utilising fresh to saline inland wetlands in Australia. Coastal populations utilise sheltered tidal flats in proximity to wetlands. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Streaked shearwater (<i>Calonectris leucomelas</i>)	Migratory Marine, Marine	Species or species habitat <i>known</i> occur within area	May occur Given the low abundance recorded at Ashmore Reef and Seringapatam Reef (which are both a significant distance from the Project Area) and at Scott Reef, low numbers of transient individuals may be present in the Project Area. The species may utilise the Project Area for foraging activities and/or fly over the area during transit. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
White-tailed tropicbird (<i>Phaethon lepturus</i>)	Migratory Marine, Marine	Species or species habitat <i>known</i> occur within area	Not likely to occur The white-tailed tropicbird occupies marine habitats in tropical waters. The species breeds on islands and atolls, where it nests in a variety of habitats including on bare sandy ground. White-tailed tropicbirds are known to breed at Rowley Shoals (over 370 km from the Project Area), although rarely, and there is a breeding BIA at the shoals for this species. The species is also known to breed at Ashmore Reef (< 10 pairs; over 200 km from the Project Area). The Cocos (Keeling) and Christmas Islands are also breeding locations (Menkhorst et al., 2017). The pelagic and solitary species is rarely encountered outside of these known breeding locations (Menkhorst et al., 2017). Due to the distance from the Project Area to key nesting/breeding locations, the white-tailed tropicbird is considered not likely to occur within the Project Area.

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Yellow wagtail (<i>Motacilla flava</i>)	Migratory (Terrestrial), Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The yellow wagtail is a migrant from Asia commonly found within Australia. The species utilises habitats such as open, moist, grassy and/or muddy habitats, including man made habitats such as sports fields and wastewater treatment plants. The species does not have key sites within the Project Area and is not expected to occur within the Project Area.
Marine Mammals			
Sei whale (<i>Balaenoptera borealis</i>)	Vulnerable, Migratory, Cetacean	Foraging, feeding or related behaviour <i>likely</i> to occur within area	May occur Due to the wide distribution of this species in oceanic waters, the sei whale may be present in the Project Area, albeit in low numbers. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species. Available literature does not indicate whether there are multiple genetically distinct populations of the southern hemisphere sub-species (<i>B. borealis schlegellii</i>). Subsequently, it is assumed that individuals that may occur within the Project Area will be part of a single southern hemisphere population which may be considered an important population, as defined in CoA (2013).
Blue whale (<i>Balaenoptera musculus</i>) Specifically, the pygmy blue whale (<i>Balaenoptera musculus brevicauda</i>) East Indian Ocean (EIO) Population	Endangered, Migratory, Cetacean	Migration route <i>known</i> in feature area to occur within area	Likely to Occur The EIO pygmy blue whale is considered likely to occur seasonally within the Project Area based on the species known distribution, migratory habitats and studies undertaken. Whilst the Project Area itself is not considered to present habitat of importance to this species (i.e. no upwellings/concentrations of plankton or similarly important features), the pygmy blue whale is likely to transit through the Project Area (which overlaps the migratory BIA) as it undertakes its seasonal migration. Due to the oceanic and wide-ranging nature of this species, the foraging BIA located at Scott Reef (approximately 5 km from the Project Area) is considered to be in relative proximity to the Project Area. It is therefore considered that the pygmy blue whale is likely to occur within the Project Area, however, in low numbers and transitionally with possible peaks in October to December (southbound migration) and mid-April to early August (northbound migration; McCauley, 2011).

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Fin whale (<i>Balaenoptera physalus</i>)	Vulnerable, Migratory, Cetacean	Foraging, feeding or related behaviour <i>likely</i> to occur within area	May occur Due to the wide oceanic distribution of this species, it is possible that the fin whale may occur within the Project Area, albeit in low numbers. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
Bryde's whale (<i>Balaenoptera edeni</i>)	Migratory, Cetacean	Species or species habitat <i>likely</i> to occur within area	May occur Given their known life-history traits and broad distribution it is considered that the Bryde's whale may be present within the Project Area in low numbers throughout the year. The species is not restricted to or reliant on the Project Area, and the Project Area does not represent a BIA for the species or habitat critical to the survival of the species.
Humpback whale (<i>Megaptera novaeangliae</i>)	Migratory, Cetacean	Species or species habitat <i>known</i> to occur within area	Likely to occur Based on the known distribution and migratory pathway of the humpback whale, it is considered likely that low numbers of this species may occur seasonally and transitionally within the Project Area. The Project Area is not considered to present important habitat to the humpback whale. There are no BIAs or Habitat critical to the survival of this species overlapping the Project Area.
Killer whale (<i>Orcinus orca</i>)	Migratory, Cetacean	Species or species habitat <i>may</i> to occur within area	May occur Due to the oceanic distribution of this species it may occur within the Project Area. Occurrence is expected to be transitional and limited to low numbers. There are no BIAs, Habitat critical to the survival of a species or habitats otherwise considered to be important to the killer whale overlapping the Project Area.
Sperm whale (<i>Physeter macrocephalus</i>)	Migratory, Cetacean	Species or species habitat <i>may</i> to occur within area	May occur Due to the broad distribution of this oceanic species, it may occur within the Project Area. The species, if present, is expected to occur transitionally and in low numbers. There are no BIAs, Habitat critical to the survival of this species or other important habitats within the Project Area for the sperm whale. This species has also exhibited a preference for deeper waters compared to that of the Project Area (350 m to 700 m).

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Spotted bottlenose dolphin (Arafura/Timor Sea populations) (<i>Tursiops aduncus</i>)	Migratory, Cetacean	Species or species habitat <i>may</i> to occur within area	May occur This species distribution extends south from the Timor and Arafura Seas to approximately Coral Bay (WA). Due to the wide range of water depths and habitats this sub-species and sub-population are known to be distributed over, it may occur within the Project Area. There are no BIAs, Habitat critical to the survival of the species, or other known important habitats for this species within the Project Area.
Marine Reptiles			
Marine Turtles			
Loggerhead turtle (<i>Caretta caretta</i>)	Endangered, Migratory, Marine	Foraging, feeding or related behaviour likely to occur within area	May occur Due to the known distribution of this species in waters off WA and record of nesting at Ashmore Reef (approximately 200 km from the Project Area), this species may occur transitionally within the Project Area, albeit in low numbers. There are no BIAs or Habitat Critical to the Survival of the loggerhead turtle overlapping the Project Area, and, the offshore open waters of the Project Area do not present important habitat for this species.
Green turtle (<i>Chelonia mydas</i>)	Vulnerable, Migratory, Marine	Foraging, feeding or related behaviour <i>known</i> to occur within area	Likely to occur The green turtle is likely to occur transitionally and in low numbers within the Project Area as it migrates toward the WA mainland after the nesting season. BIAs associated with Scott Reef, Sandy Islet and Seringapatam Reef do not overlap with the Project Area, however, Habitat Critical to the Survival of the Species associated with nesting at Sandy Islet does overlap the Project Area. This buffer is a radius on the known nesting location and studies have shown that the green turtle remains within close proximity to Scott Reef during internesting. Subsequently, green turtles are not expected to utilise the deep-water habitats of the Project Area in significant numbers during the internesting period. Notably, there are no emergent land masses within the Project Area which would support nesting for the green turtle (or other marine turtles). The water depths and bare substrates within the Project Area also do not present suitable foraging habitat for this species.

Appendix B – Assessment of species presence within the Browse CCS Project Area

Common Name / Species Name	EPBC Act Listing	PMST Advice	Assessment (likelihood of occurrence within the Project Area) & Justification
Hawksbill turtle (<i>Eretmochelys imbricata</i>)	Vulnerable, Migratory, Marine	Foraging, feeding or related behaviour <i>known</i> to occur within area	May occur As this species has been recorded at Scott Reef and due to the proximity of nesting and internesting BIAs for this species to the Project Area, the hawksbill turtle may occur within the Project Area transitionally, albeit in low numbers. There are no BIAs or Habitat Critical to the Survival of the hawksbill turtle overlapping the Project Area and the offshore open waters of the Project Area do not present important habitat for this species.
Flatback turtle (<i>Natator depressus</i>)	Vulnerable, Migratory, Marine	Foraging, feeding or related behaviour <i>likely</i> to occur within area	May occur There are no BIAs or Habitat Critical to the Survival of the flatback turtle overlapping the Project Area. The closest BIA to the Project Area is associated with the Lacepede Islands (approximately 150 km away). There is also Habitat Critical to the Survival of the species associated with the Lacepede Islands. The offshore open waters of the Project Area do not present important habitat for this species. Due to the known distribution of this species, their highly migratory nature and presence of extensive BIAs along the Pilbara and Kimberley coastline, it is considered they may be present within the Project Area transitionally, albeit in low numbers.

Appendix B – Assessment of species presence within the Browse CCS Project Area

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Leatherback turtle (<i>Dermochelys coriacea</i>)	Endangered, Migratory, Marine	Foraging, feeding or related behaviour <i>likely</i> to occur within area	Not likely to occur Leatherback turtles are pelagic feeders and spend the majority of their lives in the open ocean in tropical, sub-tropical and temperate waters throughout the world (DAWE, 2009). The species has been recorded feeding in the coastal waters of all Australian States and Territories. There are no known foraging sites for this species within WA (DoEE, 2017). There are no records of leatherback turtles nesting in WA (DoEE, 2017) but scattered isolated nests have been recorded in southern Queensland and the Northern Territory (DEWHA, 2008a). It is thought that the species migrates from Australian waters to breed at large rookeries in neighbouring countries such as Indonesia, Papua New Guinea and Solomon Islands. There are no BIAs or Habitat Critical to the Survival of this Species overlapping the Project Area and the open offshore waters of the Project Area do not present important habitat to the leatherback turtle. Surveys undertaken at Scott Reef, the nearest emergent land mass, have not identified leatherback turtles to date and there are no known key habitats for this species within the Project Area or within WA. It is not, therefore, considered likely that this species will occur within the Project Area.

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Olive ridley turtle (<i>Lepidochelys olivacea</i>)	Endangered, Migratory, Marine	Foraging, feeding or related behaviour <i>likely</i> to occur within area	Not likely to occur Olive ridley turtles have a circumpolar distribution and nest throughout tropical waters (DAWE, 2022d). There are two genetic stocks in Australia, one that nests in the NT and another which nests in the north western Cape York area (Queensland; DoEE, 2017). There are also records of individuals of unknown genetic stock nesting in WA coastal areas of the Kimberley region (DoEE, 2017). This species is the most numerous of all marine turtles in the world (DAWE, 2022d). Due to long-term harvesting of marine turtle eggs in other Pacific countries (e.g. Thailand and Peninsula Malaysia), the Australian population is considered likely to be the largest breeding population remaining in the south-east Asia-western Pacific region (DAWE, 2022d). There has been no recorded concentrated nesting recorded in Australia for this species, however, low density nesting has been recorded in the NT. Bardi-Jawi Rangers also found olive ridley hatchlings in WA in 2008 (DAWE, 2022d). It is considered possible that the Australian population may present an isolated breeding population (DAWE, 2022d). This species exhibits migratory circuits in tropical and some subtropical areas (DAWE, 2022d). As there is limited evidence of nesting for the olive ridley within WA and as the Project Area is toward the western extent of the known distribution of this species in Australia, it is not considered likely that the olive ridley will occur within the Project Area. There are no BIAs or Habitat Critical to the Survival of the olive ridley turtle overlapping the Project Area and the offshore open waters of the Project Area do not present important habitat for this species.

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Sea snakes			
Leaf-scaled sea snake (<i>Aipysurus foliosquama</i>)	Critically Endangered, Marine	Species or species habitat <i>may</i> occur within area	Not likely to occur The water depths (approximately 350 to 700 m) and predominately bare sandy substrates of the Project Area are not considered to present important habitat for sea snakes. The suitable shallower reef habitats associated with Scott Reef are also approximately 5 km from the Project Area. Sea snakes are, therefore, not considered to be reliant on habitats within the Project Area and are not considered likely to occur.
Short-nosed sea snake (<i>Aipysurus apraefrontalis</i>)	Critically Endangered, Marine	Species or species habitat <i>likely</i> to occur within area	Not likely to occur The water depths (approximately 350 to 700 m) and predominately bare sandy substrates of the Project Area are not considered to present important habitat for sea snakes. The suitable shallower reef habitats associated with Scott Reef are also approximately 5 km from the Project Area. Sea snakes are therefore not considered to be reliant on habitats within the Project Area and are not considered likely to occur.
Dusky Sea Snake (<i>Aipysurus fuscus</i>)	Endangered, Marine	Species or species habitat <i>likely</i> to occur within area	Not likely to occur The water depths (approximately 350 to 700 m) and predominately bare sandy substrates of the Project Area are not considered to present important habitat for sea snakes. The suitable shallower reef habitats associated with Scott Reef are also approximately 5 km from the Project Area. Sea snakes are therefore not considered to be reliant on habitats within the Project Area and are not considered likely to occur.

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Fish			
Shortfin mako (<i>Isurus oxyrinchus</i>)	Migratory	Species or species habitat <i>likely</i> to occur within area	May occur Due to the highly migratory nature of this species within Australian waters it may occur transitionally within the Project Area. No BIAs or Habitat Critical to the Survival of this species have been identified. There are no known important habitats for this species within the Project Area, and the Project Area is not expected to be of importance to this species.
Longfin mako (<i>Isurus paucus</i>)	Migratory	Species or species habitat <i>likely</i> to occur within area	May occur Due to the oceanic distribution and preference for deep water habitats of up to 700 to 800m (and reported in depths up to 1.75 km; Rigby et al., 2019), similar to the water depths in the Project Area (350 m to 750 m) this species it may occur within the Project Area. No BIAs or Habitat Critical to the Survival of this species have been identified. There are no known important habitats for this species within the Project Area, and the Project Area is not expected to be of importance to this species.
Whale shark (<i>Rhincodon typus</i>)	Vulnerable, Migratory	Foraging, feeding or related behaviour <i>known</i> to occur within area	Likely to occur Due to the oceanic distribution of this species, migratory habits and studies indicating the species may transit near to Scott Reef, it is considered that the whale shark may occur transitionally within the Project Area. Occurrence is expected to be transitional, in low numbers and more likely during their northern migration (July to November). No Habitat Critical to the Survival of this species has been identified, and the Project Area does not overlap any BIAs for this species. The whale shark migration BIA is, however, located approximately 35 km inland of the Project Area. The Project Area itself is not expected to provide important habitat to this species.
White shark (<i>Carcharodon carcharias</i>)	Vulnerable, Migratory	Species or species habitat <i>may</i> occur within area	May occur Due to the oceanic distribution of this species and their transient solitary nature, it is considered that this species may occur within the Project Area, albeit in low numbers. There are no specific habitats of important to this species within the Project Area and there are no BIAs or Habitat critical to the survival of a species within the Project Area.

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Reef manta ray (<i>Mobula alfredi</i>)	Migratory	Species or species habitat <i>known</i> to occur within area	Not likely to occur The reef manta ray is commonly sighted inshore, but also found around offshore coral reefs, rocky reefs and seamounts (Marshall et al. 2009). In contrast to the giant manta ray, long-term sighting records of the reef manta ray at established aggregation sites suggest this species is more resident in tropical waters, and may exhibit smaller home ranges, philopatric movement patterns and shorter seasonal migrations than the giant manta ray (Deakos et al. 2011, Marshall et al. 2009). For example, a resident population of reef manta rays has been recorded at Ningaloo Reef (> 1,000 km from the Project Area), with evidence to suggest there is a nursery for this species within lagoon habitats at Ningaloo Reef (Cerutti-Pereyra et al., 2013). The species exhibits a preference for shallow waters and seafloor features (e.g., seamounts); habitat which is not present within the Project Area. There are no important habitats, BIAs or Habitat critical to the survival of this species within the Project Area.
Giant manta ray (<i>Mobula birostris</i>)	Migratory	Species or species habitat <i>likely</i> to occur within area	May occur Due to the wide distribution of this species, including in offshore waters, this species may occur within the Project Area. Occurrence is expected to be limited to low numbers of transient individuals. No important habitats, including BIAs or Habitat critical to the survival of a species, have been identified as occurring within the Project Area.
Northern river shark (<i>Glyphis garricki</i>)	Endangered	Species or species habitat <i>may</i> occur within area	Not likely to occur The northern river shark is distributed across the northern WA and NT coastal areas, this species lives between both freshwater and seawater habitats, particularly rivers, intertidal and inshore habitats and estuarine systems. Whilst this species has also been recorded in waters further offshore, the extent to which this occurs is uncertain and the species is not expected to occur within the Project Area.

Common Name / Species Name	EPBC Act Listing	PMST Advice	Assessment (likelihood of occurrence within the Project Area) & Justification
Freshwater sawfish (<i>Pristis pristis</i>)	Vulnerable, Migratory	Species or species habitat <i>may</i> occur within area	Not likely to occur The largetooth sawfish is the largest freshwater fish in Australia, weighing up to 600 kg and reaching 6.56 m in length (DoE, 2014). The species is a slender sawfish with a shark-like dorso-ventrally flattened body. The species has been recorded in sandy / muddy bottomed river and estuarine habitats, in particular along the Pilbara and Kimberley coastline. Records vary from 400 km inland out to 100 km offshore (DoE, 2014). The species undergoes a marked shift in habitat utilisation between early life stages and adult life stages; from riverine and estuarine habitats to marine and estuarine habitats (DoE, 2014). BIAs for the largetooth sawfish have been identified for foraging, nursing and pupping at 80 Mile Beach, Broome / Roebuck Bay and King Sound, which are a significant distance from the Project Area (> 270 km). According to the multispecies recovery plan, habitats where aggregations of individuals have been recorded displaying biologically important behaviours (i.e. breeding, foraging) are considered critical to the survival of the species, unless population survey data suggests otherwise (DoE, 2015c). Based on this species habitat preferences it is not considered likely that the largetooth sawfish will occur within the Project Area. There are no BIAs or Habitat Critical to the Survival of this species in proximity to the Project Area, or other known important habitats for this species within or near to the Project Area.
Green sawfish (<i>Pristis zijsron</i>)	Vulnerable, Migratory	Species or species habitat <i>known</i> to occur within area	Not likely to occur The species has a shark-like body, flattened head and elongated snout / rostrum studded with rostral teeth (the 'saw'). The green sawfish is olive green to brown in colour on the dorsal surface and pale to white on the ventral surface (TSSC, 2008). The species can grow up to 5 m in length (DEWHA, 2008b). The green sawfish occurs in northern Australian waters, predominately from Broome (WA) to Cairns (Queensland), but may occur as far south as Shark Bay (DoE, 2015c). The green sawfish typically occurs in shallow waters, including inshore marine waters, river mouths, estuaries and sandy / muddy beaches and does not occur in freshwater habitats (DAWE, 2022f). Adults of species have been recorded hundreds of kilometres offshore (DoE, 2015c). There are BIAs at Eighty Mile Beach, Roebuck Bay / Broome, Cape Leveque and

Common Name / Species Name	EPBC Act Listing	PMST Advice	Assessment (likelihood of occurrence within the Project Area) & Justification
			Camden Sound (more than 270 km from the Project Area) for foraging, pupping and nursing. According to the multispecies recovery plan, habitats where aggregations of individuals have been recorded displaying biologically important behaviours (i.e. breeding, foraging) are considered critical to the survival of the species, unless population survey data suggests otherwise (DoE, 2015c). There is a paucity of data on the breeding ecology of this species. It is thought that they have slow growth rates, are long lived and have low fecundity (DoE, 2015c). It is unknown if there is migration from adults, juveniles or larvae green sawfish outside of Australia into Australia (TSSC, 2008). Given the habitat preferences and known distribution of this species, it is not expected that the green sawfish will occur within the Project Area. There are no BIAs or Habitat Critical to the Survival of this species in proximity to the Project Area, or other known important habitats for this species within or near to the Project Area.
Oceanic white tip shark (<i>Carcharhinus longimanus</i>)	Migratory	Species or species habitat <i>may</i> occur within area	May occur Due to the global distribution of this species within tropic and subtropical waters and preference for deeper waters, this species may occur within the Project Area. Occurrence is expected to be limited to low numbers of transient individuals. There are no BIAs, Habitat critical to the survival of this species or other important habitats for this species within the Project Area.
Narrow sawfish (<i>Anoxypristis cuspidata</i>)	Migratory	Species or species habitat <i>may</i> occur within area	Not likely to occur The narrow sawfish is distributed throughout the Indo-Pacific, including across northern Australia from the Pilbara coast in WA to Broad Sound in Queensland (FRDC, 2019). This species is known to be benthopelagic, inhabiting both coastal and estuarine habitats to depths of at least 40 m (FRDC, 2019). This species is not expected to occur within the Project Area due to the species' preference for shallow habitats. There are no BIAs, Habitat critical to the survival of this species or otherwise identified important habitats for this species within or near to the Project Area.

Appendix B – Assessment of species presence within the Browse CCS Project Area

Common Name / Species Name	EPBC Act Listing	PMST Advice	Assessment (likelihood of occurrence within the Project Area) & Justification
Scalloped Hammerhead (Sphyrna lewini)	Conservation Dependent	Species or species habitat <i>likely</i> to occur within area	May occur The scalloped hammerhead is a coastal and semi-oceanic pelagic species (Compagno 1984). In northern Australia, juveniles inhabit shallow inshore environments whereas adults generally occur in deeper waters near the edge of the continental shelf (Stevens & Lyle 1989; Simpfendorfer & Milward 1993). Adults of this species may occur within the Project Area. Occurrence is expected to be limited to low numbers of transient individuals. There are no BIAs, Habitat critical to the survival of this species or other important habitats for this species within the Project Area.